

ACCESSION NR: AP4009934

S/0057/64/0034/001/0146/0148

AUTHOR: Vorob'yeva, N.A.; Kagan, Yu.M.; Lyugushchenko, R.I.; Milenin, V.M.

TITLE: On the electron velocity distribution in the positive column of a mercury discharge. Part.2.

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.1, 1964, 146-148

TOPIC TAGS: velocity distribution, electron velocity distribution, mercury discharge, positive column

ABSTRACT: Electron velocity distributions were measured in the positive columns of hot cathode mercury discharges at pressures from 1.2×10^{-3} to 5×10^{-2} mm Hg and currents from 20 to 500 mA. The measurements were performed by a probe method described earlier (N.A. Vorob'yeva, Yu.M. Kagan, V.M. Milenin, ZhTF, 33, 571, 1963). Except for an improved narrow-band amplifier, the apparatus was identical with that previously employed. The new amplifier has a gain of 6×10^5 and a pass band of 8 cps. The resulting improvement in the signal to noise ratio made it possible to follow the velocity distributions to higher electron energies than previously reported. The results of the measurements at 200 mA are presented in the form of graphs. At pres-

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sures of 1.2×10^{-3} and 6×10^{-3} mm Hg, the distributions were found to be Maxwellian out to the highest electron energies recorded (12 eV and 93V, respectively). At 2.5×10^{-2} and 5×10^{-2} mm Hg, deviations from the Maxwell distribution were observed; fewer high energy electrons were present than required by the Maxwell function fitting the low energy portion of the distribution. At 2.5×10^{-2} mm Hg the electron temperature was about 12 000°K and deviations from the Maxwell distribution first became appreciable at electron energies slightly greater than 4 eV; the corresponding figures at 5×10^{-2} mm Hg were 9000°K and 2 eV. Possible experimental errors due to the presence of ion currents would tend to mask the observed effect, which is therefore regarded as real. Orig.art.has: 7 figures.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im.A.A.Zhdanova (Leningrad State University)

SUBMITTED: 01Nov62

DATE ACQ: 10Feb64

ENCL: 00

SUB CODE: PH

NR REF Sov: 002

OTHER: 000

2/2

VOROB'YEVA, N.A.; KAGAN, Yu.M.; LYAGUSHCHENKO, R.I.; MILENIN, V.M.

Function of electron velocity distribution in a positive mercury
discharge column. Part 2. Zhur. tekh. fiz. 39 no.1:146-148 Ja
'64. (MIRA 17:1)

1. Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova.

VOROB'YEVA, N.A.; KAGAN, Yu.M.; MILENIN, V.M.

Distribution function of electrons based on their velocities in
a positive mercury discharge column. Part 1. Zhur.tekh.fiz. 33
no.5:571-575 My '63. (MIRA 16:6)

1. Leningradskiy gosudarstvennyy universitet imeni A.A.
Zhdanova. (Plasma (Ionized gases)) (Electron beams)

MINSKER, K.S.; FEDOSEYEVA, G.T.; VOROB'YEVA, N.A.; RAZUVAYEV, G.A.

Polymerization of ethylene on a chlorinated mixture of titanium
and aluminum. Dokl. AN SSSR 149 no.6:1351-1353 Ap '63,
(MIRA 16:7)

1. Chlen-korrespondent AN SSSR (for Razuvayev).
(Ethylene polymers) (Catalysts)

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860830008-7

NOTE: *ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED*
SOURCE AND DATE OF INFORMATION: *AMERICAN
CENSUS OF 1960*
*ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED*

SUBMITTED: June 25, 1962

Card 1/1

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860830008-7"

ACCESSION NR: AP4035691

8/0057/64/034/005/0828/0832

AUTHOR: Vorob'yeva, N.A.; Kagan, Yu.M.; Milenin, V.M.

TITLE: On the electron velocity distribution function in the positive column of a mixture of gases

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.5, 1964, 828-832

TOPIC TAGS: plasma, positive column, electron velocity distribution, electric discharge, multicomponent plasma, mercury, inert gas

ABSTRACT: The electron velocity distribution function was determined in the positive columns of gas discharges taking place in a mixture of mercury vapor and one of the inert gases Ne, He, Ar, Xe. The discharge tube was 50 cm long and 2.5 cm in diameter. The electron velocity distribution was calculated from the characteristics of a set of five probes located at 5 cm intervals along the axis of the tube. The experimental technique is described in more detail elsewhere (N.A.Borob'yeva, Yu.M. Kagan, R.I.Lyagushchenko and V.M.Milenin, ZhTF 34, 1964). In all the measurements the discharge current was 200 mA and the partial pressure of mercury vapor was 2.5×10^{-3} mm Hg. The electron velocity distribution in the positive column of a pure

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ACCESSION NR: AP4035691

mercury vapor discharge at this pressure was previously found to be Maxwellian (loc. cit. supra), and this finding was confirmed in the present series of measurements. Electron distribution functions were determined with various amounts of inert gas present, ranging from 0.006 mm Hg of Xe to 4.0 mm Hg of Ne, several different quantities of each gas being employed. In each case it was found that when enough of the inert gas was present the electron distribution deviated from the Maxwellian in the sense that too few high energy electrons were present. The heavier gases were more efficient in depressing the number of high energy electrons than were the lighter ones, 0.02 mm Hg of Xe producing about the same effect as 0.5 mm Hg of Ne. The data are presented graphically, and on each experimental curve the Maxwell distribution is drawn corresponding to the electron temperature obtained from the negative probe characteristic. In some cases, in addition to the large deviations at high energies, small deviations between the experimental curve and the Maxwell distribution can be discerned in the region of the maximum. These small deviations are ascribed to error in determining the space potential from the position of the maximum of the second derivative of the negative probe current with respect to the probe potential. This maximum was sharp in the case of pure mercury vapor, but in mixtures showing considerable deviation from the Maxwell distribution the maximum was broad and could not

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ACCESSION NR: AP4035691

be located precisely. This source of error, however, could not appreciably affect the observations of the large deviations at high electron energies.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im.A.A.Zhdanova (Leningrad State University)

SUBMITTED: 24May63

SUB CODE: ME, EM

DATE ACQ: 20May64

NR REF Sov: 002

ENCL: 00

OTHER: 001

Card 3/3

IVANOV, S.N.; VOROB'YEVA, N.B.

Adaptability of mysids to increased mineralization of water in
Eastern Balkhash. Zool.zhur. 41 no.1:138-139 Ja '62,
(MIRA 15:4)

1. Laboratory of Ichthyology, Kara-Kalpak Branch of the Academy
of Sciences of the Uzbek S.S.R. (Urinak), and Balkhash Branch of the
Institute of Ichthyology and Fishery Management, Academy of
Sciences of the Kazakh S.S.R.
(Balkhash Lake--Schizopoda)

IVANOV, S.N.; VOROB'YEVA, N.B.

Seasonal fluctuations of the residual population and biomass of
mysids in Lake Balkhash. Zool. zhur. 42 no.1:131-133 '63.
(MIRA 16:5)

1. Laboratory of Ichthyology of the Karakalpak Branch of the
Academy of Sciences of the Uzbek S.S.R., Nukus, and Balkhash
Department of the Institute of Ichthyology and Fishery Management,
Academy of Sciences of the Kazakh S.S.R., Balkhash.
(Balkhash, Lake—Mysidae)

COUNTRY	:	USSR	M
CATEGORY	:	Cultivated Plants. Potatoes. Vegetables. Cucurbits.	
APS. JOUR.	:	RZhBiol., No. 3, 1959, No. 10983	
AUTHOR	:	Smirnov, B. M., Vorob'yeva, N. F.	
INST.	:	Scientific Research Institute of the Agriculture of *)	
TITLE	:	A New High-Yield Watermelon Variety - Saratovskiy Kormovoy.	
ORIG. PUB.	:	S. kh. Povolzh'ya, 1958, No. 5, 52-54	
ABSTRACT	:	At the Scientific Research Institute of the Agriculture of the Southeast, there has been conducted since 1939 the work on breeding fodder watermelon. A specimen from the Middle-Asiatic station of the All-Union Institute of Plant Growing (Kibray, Tashkent) was used as the primary material. The most productive and fast-maturing material selected in bulk from the Kibray watermelon variety was crossbred for several years with the varieties DLSKhIM and Azovskiy Pudcovik. The newly created watermelon variety Saratovskiy Kormovoy produced, on an average of 3	

CARD: 1/2

*) the Southeast.

-71-

COUNTRY :	
CATEGORY :	
ABS. JOUR. :	RZhBiol., No. 1959, No. 10983
AUTHOR :	
INST. :	
TITLE :	
ORIG. PUB. :	
ABSTRACT :	years, a yield 23% higher than the yield of the variety DISKhIM. On a 7-year average, the yield comprised 224 centners/ha; its fruit contains 7.6% of dry substances of which 6.3% is sugar whereas the Kibray variety contains 5.2% of dry substances and 4% of sugar; DISKhIM yields 3.9 and 3.1% respectively. After 3 months' storage in a dry cellar at room temperature the amount of healthy fruit of the Saratovskiy Kormovoy variety was 87.7%, that of DISKhIM - 79.2% and Kibray - 76.9%. The Saratovskiy Kormovoy watermelon has been undergoing the national variety trial since 1954. — V. S. Rudneva
CARD: 2/2	

VOROB'YEVA, N.I.

Cand Tech Sci - (diss) "Improvement of methods of controlling the quality of rosin." Sverdlovsk, 1961. 24 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Ural Forestry Engineering Inst); 140 copies; free; (KL, 6-61 sup, 215)

VOROB'YEVA, N.M. [Vorobiova, N.M.]

Nature of so-called gastrectolic reflex. Visnyk. Kyiv.. un.
no.2. Ser. biol. no.2:73-78'60. (MIRA 16:8)
(GASTROINTESTINAL MOTILITY) (REFLEXES)

VOROB'IEVA, N.M. [Vorobiova, N.M.]

Effect of hypothalamic stimulation on the motor activity of the
large intestine. Visnyk Kyiv.un. no.3. Ser.biol. no.1:163-167
'60. (MIRA 16:4)

(HYPOTHALAMUS) (GASTROINTESTINAL MOTILITY)

VOROB'YEVA, N. N. (From the Central Institute of Epidemiology and Microbiology)

Method of Preparing Dry Wound Phages. Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, 5:64. May, 1946. Full trans. in Verob'yeva's dossier.

VOROB'YEVA, N. N. FILOSOFOVA, T. G. i SHEKNTER, A. B.

20105 VOROB'YEVA, N. N., FILOSOFOVA, T. G. i SHEKNTER, A. B. Sravnitel'noye
izuchenije antibiotikov v profilaktike. Bracheb. delo, 1949, No. 6, stb. 549-50.

SO: LETOPIS ZHURNAL STATEY, Vol. 27, Moskva, 1949.

VOROB'YVA, N. N.

24376 VOROB'YVA, N. N. Opyt profilakticheskoy sanatsii antibiotikami pri koldlyushe.
V ogl. 2-Y ZVT. Vracheb. Delo, 1949, No. 8, STB. 717-1f.

SO: Letopis, No. 32, 1949.

VOROB'IEVA, N.N.; PASTERNAK, R.A.

Hemo phagocytic indexes in the saliva of patients with different
forms of gingivitis. Stamotologija 35 no.2:59-60 Mr-Apr '56.

(MLRA 9:8)

1. Iz kafedry mikrobiologii Kiyevskogo meditsinskogo stomatologicheskogo instituta
(GUMS--DISEASES) (SALIVA)
(OPSONINS AND OPSOMIC INDEX)

ZALESSKIY, G.D., prof., VOROB'YEVA, N.N., prof., PIROGOVA, O.I., SHURIN, S.P.
KAZHACHEYEV, V.P., YAVOROVSKAYA, B.Ye., FEDOROV, A.I., MOSCLOV, A.N.

Specific agent inducing rheumatic fever. Report No.1: Some data
on a filtrable virus isolated in rheumatic fever. Terap. arkh.
30 no.5:3-15 My '58 (MIRA 11:6)

1. Iz Novosibirskogo mediteinskogo instituta.
(RHEUMATIC FEVER, microbiology,
isolation & infect. of animals with specific virus (Rus))
(VIRUSES,
isolation & infect. of animals with specific rheum.
virus (Rus))

DREYZIN, R.S.; ZUBOVA, Z.F.; YAVOROVSKAYA, V. Ye.; BOCHAROV, Ye.F.;
FOKINA, G.I.; BALANDINA, A.M.; ROZINA, E.E.; VOROB'YEVA, N.N.;.
ZALESSKIY, G.D.; ZHDANOV, V.M.

Serological properties and pathogenicity of the R-virus in
suckling mice. Vop. virus 9 no.4:462-468 Jl-Ag '64

1. Institut virusologii imeni D.I. Ivanovskogo AMN SSSR,
Moskovskiy nauchno-issledovatel'skiy institut virusnykh
preparatov i Novosibirskiy meditsinskiy institut.

ZALESSKIY, G.D.; VOROBIEVA, N.N.; YAVOROVSKAYA, V.Ye.; SHURIN, S.P.;
BALANDINA, A.M.; ZHDANOV, V.M.; DREYZIN, R.S.

Study of filtrable viruses isolated from rheumatic patients.
Vest.AMN SSSR 17 no.9:85-93 '62. (MIRA 15:12)
(RHEUMATIC FEVER--MICROBIOLOGY) (VIRUSES)

DREYZIN, R.S.; YAVOROVSKAYA, V.Ye.; BALANDINA, A.M.; SHURIN, S.P.;
VOROB'YEVA, N.N.; MOSOLOV, A.N.; ZALESSKIY, G.D.; ZHDANOV, V.M.

Group of new virus strains, the so-called R virus. Vop. virus. 6
no.5:521-532 S-0 '61. (MIRA 15:1)

1. Institut virusologii imeni D.I.Ivanovskogo AMN SSSR, Moskva i
Novosibirskiy meditsinskiy institut, Novosibirsk.
(VIRUSES)

VOROB'YEVA, N.N., red.

[Problems of dysentery] Voprosy dizenterii. Pod red. N.N. Vorob'evoi.
Novosibirsk, 1957. 134 p. (MIRA 14:7)

1. Novosibirsk. Meditsinskiy institut. Kafedra mikrobiologii.
(DYSENTERY)

VOROB'YEVA, N.M. [Vorobiova, N.M.]

Interrelation between the motor activity of the small and large intestine. Nauk zap. Kyiv. un. 16 no.18:89-93 '57.
(MIRA 13:2)

(INTESTINE)

ZALESSKIY, G.D. and VOROBYEVA, N.U.

"The Role of the Filtrable Virus Isolated From Rheumatic Patients in the
Etiology of the Disease."

presented at the 4th European Rheumatological Congress, Istanbul, Turkey, 28-30 Sep '59.

VOROB'YAVA, N.N.; KHARITONOVА, N.N.; PROTAS, L.K.; SIMIN, Ya.Z.

Virological characteristics of the epidemic outbreak of polio-myelitis in Novosibirsk in 1957. Vop.virus. 4 no.3:296-300
(MIRA 12:8)
My-Je '59.

1. Novosibirskaya virusologicheskaya laboratoriya.

(POLIOMYELITIS VIRUS,
strains isolated in 1957 epidemic in Russia
(Rus))

VOROB'YEVA, N.N.; KOLESNIKOV, M.A., kand.sel'skokhos.nauk; MOTOVILOV,
B.A., kand.sel'skokhos.nauk; PODGAYEVSKAYA, A.A., kand.sel'sko-
khoz.nauk; PRIYMAK, A.K., doktor sel'skokhos.nauk; RYADNOVA, I.M.,
kand.sel'skokhos.nauk; SERGEYEV, L.M., kand.sel'skokhos.nauk;
SNITKO, N.F., kand.sel'skokhos.nauk; STOROZHENKO, Ye.M.;
THUSEVICH, G.V., kand.sel'skokhos.nauk; ZAHADVOROV, S.M., red.;
KOFANOV, P.P., tekhn.red.

[Fruit culture] Plodovodstvo. Krasnodarskoe knizhnoe izd-vo,
1957. 267 p. (MIRA 12:5)

(Fruit culture)

(A) L 11987-66

ACC NR: AP6000840

SOURCE CODE: UR/0244/65/024/005/0042/0045

AUTHOR: Vorob'yeva, N. P.

20 B

ORG: Department of Nutrition Hygiene of the First Lenin Order Moscow Medical Institute im. I. M. Sechenova (Kafedra gigiyeny pitaniya I Moskovskogo ordena Lenina meditsinskogo instituta)

TITLE: Effect of vitamin E on the development of experimental atherosclerosis in rabbits

SOURCE: Voprosy pitanija, v. 24, no. 5, 1965, 42-45

TOPIC TAGS: experiment animal, circulatory system diseases, vitamin, nutrition

ABSTRACT: The effect of large and small vitamin E doses on atherosclerosis was studied in three experimental groups of 9 chinchillas each and a control group of 6 animals. Experimental atherosclerosis was induced in animals by N. N. Anichkova's and S. S. Khalatova's method. For a period of 90 days the first group received a daily 0.2 g/kg dose of cholesterol (dissolved in cotton oil), the second group received a daily 50 mg dose of vitamin E in addition to the cholesterol, and the third group received a daily 10 mg dose of vitamin E in addition to the chole-

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UDC: 616.13-004.6-085.32:577.161.3-0929

L 11987-66

ACC NR: AP6000840

terol. Cholesterol and phospholipid levels of the blood were determined prior to the experiment and at periods of 30, 60, and 90 days; alpha- and beta-lipoprotein levels of the blood were determined by paper electrophoresis. Following the 90 day period animals were killed for histological investigation. Results show that the cholesterol level rose sharply in all experimental animals. The phospholipid level also increased, but not as high; thus, the phospholipid/cholesterol coefficient dropped sharply for all experimental animals. The alpha-lipoprotein level decreased in all three experimental groups. Histological investigations of the aorta and internal organs disclosed no differences between experimental groups. On the basis of present findings, the author concludes that vitamin E doses of 10 and 50 mg do not affect the development of experimental atherosclerosis. Orig. art. has: 1 table.

SUB CODE: 06/ SUBM DATE: 11Jan54/ ORIG REF: 010/ OTH REF: 007

HW

Card 2/2

MAKEYEV, Oleg Vladimirovich; REMEZOV, N.P., prof., doktor geologo-mineralogicheskikh nauk, otv. red. VOROB'YEVA, N.P., red.; PROKHOROV, A.I., tekhn. red.

[Turf soils of the taiga in the southern part of Central Siberia; their genesis properties, and efficient utilization]
Dernovye taezhnye pochvy iuga Srednei Sibiri; genetika, svoistva i puti ratsional'nogo ispol'zovaniia. Ulan-Ude, knizhnoe izdvo, 1959. 346 p. (MIRA 14:5)

1. Moskovskiy gosudarsvennyy universitet imeni M.V.Lomonosova
(for Remezov)
(Siberia--Soils) (Taigas)

VOROBIEVA4N8P8

600

1. VASIL'YEV, A. A., VOROB'YEVA, N. P.

2. USSR (600)

"Dissolving Mercurio Sulfide in an Acid Solution of
Potassium Iodide", Zhur. Obshch. Khim., 9, No 19, 1939.
Institute of Rare and Minor (Malykh) Metals, Moscow.

Received 16 April, 1939.

9. ■■■ Report U-1626, 11 Jan 1952.

LOSEV, B.I.; VOROB'YEVA, N.S.; ZIMAKOVA, Ye.A.

Characteristics of interaction between halogens and coals of
different types. Khim. i tekhn. topl. i masel 6 no.7:26-30 Jl '61.
(MIRA 14:6)

1. Institut goryuchikh iskopayemykh AN SSSR.
(Halogens) (Coal)

VOROB'YEVA, N.S.; PETROV, A.I.A.

Isomerization of hydrocarbons of the bicyclo[3,3,0]octane
(pentalane) series in the presence of aluminum bromide.
Neftekhimiia 5 no.6:801-808 N-D '65. (MIRA 19:2)

1. Institut geologii i razrabotki goryuchikh iskopayemykh.
Submitted Jan. 18, 1965.

11.7000

75680
SOV/80-32-10-29/51

AUTHORS: Losev, B. I., Vorob'yeva, N. S., Ninin, V. K., Zimakova, Ye. A.

TITLE: Behavior of Sulfur in Coal Chlorination Process

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 10, pp 2300-2303 (USSR)

ABSTRACT: Chlorination of Donbas coal, type PS (Chumakovo mine), PZh (Nikitovka), K (Avdakovo), and G (Dobropol'ye), and Kizelovskiy basin (Komsomolets) coal, reduced the content of ash as well as of pyrite and organic sulfur; sulfur of sulfate origin was removed completely in chlorination. Multistage chlorination removed up to 80% of total sulfur content. The addition of chlorinated coal with 1 to 10% Cl to the coke oven charge reduced the coke's sulfur content by 10 to 15%; the mechanical constants of coke remained unaffected. There are 2 figures; 5 tables; and 7 references, 4 British, 1 German, and 2 Soviet. Most recent British references are: H. Eccles, A. McCulloch, J. Soc. Chem. Ind., 49, 377-382T, 383-386T (1930); A. Marsch, A. McCulloch, E. Parrisch, ibid.,

Card 1/2

Behavior of Sulfur in Coal Chlorination
Process

75680
SOV/80-32-10-29/51

48, 167-174T (1929).

SUBMITTED: December 8, 1958

Card 2/2

AUTHOR: Kaut, V. M.; Tsarova, N. S.; Vorob'yeva, N. Ye.

ACC NR: AP7008064

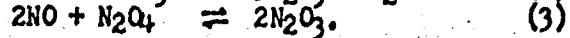
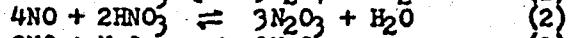
ORG: North Donets Branch, State Institute of the Nitrogen Industry (Severodonetskiy filial Gosudarstvennogo instituta azotnoy promyshlennosti)

TITLE: Absorption of nitrogen oxides by concentrated nitric acid at subzero temperatures

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 33, no. 1, 1967, 110-114

TOPIC TAGS: nitric acid, nitrogen oxide

ABSTRACT: The possibility of a complete oxidation of nitric oxide by concentrated nitric acid at subzero temperatures was studied in three series of experiments. In the first, a study of the absorption of gaseous NO (0 to 45 g) in 75 g of 98% HNO₃ at -20° showed the following reactions to occur:



In the second, the absorption of 0 to 22 g of NO in 73 g of 93% liquid N₂O₄ was studied at -12°; the amount of HNO₃ and water was found to remain practically unchanged in the single-layer four-component system HNO₃-N₂O₄-NO-H₂O formed, and

Card 1/2

UDC: 661.563.4: 74.321.001.5

ACC NR: AP7008064

the change of the other two components is described by reaction (3). At a low N_2O_3 concentration, NO is absorbed quickly and almost completely by N_2O_4 , but as the N_2O_3 content reaches 55 wt. %, the absorption of NO decreases. The third series of experiments, set up to determine the absorption of nitrous gases in the range from 0 to 17 g of NO + 114 g of NO_2 in 75 g of 98% HNO_3 , showed the absorption to occur in two steps in this range: first, the single-layer three-component system $HNO_3-N_2O_4-H_2O$ is formed, and then unmixing takes place. The reaction is described by (1). A fourth series of experiments showed that a 50% dilution of nitrogen oxides with nitrogen has practically no effect on the change in the composition of the solution. Orig. art. has: 3 figures and 9 formulas.

SUB CODE: 07/ SUBM DATE: 22Mar65/ ORIG REF: 004/ OTH REF: 002

Card 2/2

VOROB'YEVA, O.

Agriculture - Statistics

June cattle inventory, Vest. stat., No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

VOROB'Yeva, O.A., doktor geol.-mineral. nauk, otvetstvennyy red.;
TSVERKOV, N.V., red. izd-va; ARONS, P.A., tekhn. red.

[Alkaline granites of the Kola Peninsula; collection of articles]
Shchelochnye granite Kol'skogo poluostrova; sbornik statei.
Moskva, Izd-vo Akad. nauk SSSR, 1958. 373 p. (MIHA 11:9)

1. Akademiya nauk SSSR, Kol'skiy filial, Kirovsk.
(Kola Peninsula—Granite)

LEVINSON-LESSING, F.Yu. [Loewinson-Lessing, F.Yu.], akademik; AFANAS'YEV,
G.D., redaktor; BEL'SHTERLI, M.K., redaktor; VOROB'Yeva, O.A.,
redaktor; PETROV, V.P., redaktor; BKL'SHTERL, M.K., redaktor
izdatel'stvo; ZELENKOVA, Ye.V., tekhnicheskiy redaktor

[Selected works] Izbrannye trudy. Moskva, Izd-vo Akad.nauk SSSR.
Vol.4. 1955. 446 p. (MLRA 10:10)

1. Chlen-korrespondent Akademii nauk SSSR (for Afanas'yev)
(Petrology)

AUTHORS: Mostovskiy, A. A., Vorob'yeva, O. B. Mayskaya, K. A. 48-22-5-11/22

TITLE: Some Properties of Poly-Alkali Photocathodes (Nekotoryye svoystva mnogoshchelochnykh fotokatodov) (Data From the VIIIth All-Union Conference on Cathode Electronics, Leningrad, October 17-24, 1957)(Materialy VIII Vsesoyuznogo soveshchaniya po katodnoy elektronike, Leningrad, 17-24 oktyabrya, 1957 g.)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1958, Vol. 22, Nr 5, pp. 561-565 (USSR)

ABSTRACT: In the last years several types of efficient photocathodes appeared; of them bismuth-silver-cesium photocathodes have already obtained far-reaching application in engineering. Their properties have been investigated to a great degree. Less known are the photocathodes mentioned in the title, which came out 2 years ago (Ref 1,2). In this work their properties are described on the basis of proper investigations. Production methods are discussed and a comparison with the photocathodes known until now, which mainly were antimony-cesium photocathodes, is made. The working of an antimony layer first by potassium, then by

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Some Properties of Poly-Alkali Photocathodes. (Data 48-22-5-11/22
From the VIIIth All-Union Conference on Cathode Electronics, Leningrad,
October 17-24, 1957)

sodium or cesium has proved to be the most effective one. By replacement of potassium by lithium no advantage is obtained. The dosage of the alkali metals is essential. Spectral characteristics are given by fig. 1. Fig. 2-4 show the change of the optical properties on occasion of a consecutive working of antimony by alkali metals. As can be seen from the here given curves the treatment by sodium after potassium leads to a noticeable alteration not only of the spectral sensitivity but also of the optical properties. As the figures show, the value of the "external" work function after the cesium treatment changes by 0,5 - 1.4 eV while the "internal" work function remains unchanged. It the variation of the magnitude of the potential barrier at the boundary photocathode - a vacuum can be obtained not only by a treatment by cesium but also by a sensitisation by oxygen. As a rule the latter method was dropped. If such a sensitisation was necessary the dark currents considerably increased and one of the main advantages of this photocathode was lost. Further properties of the photocathodes under discussion are described. Only preliminary data on the stability are present. According to them the fatigue of these photo-

Card 2/3

Some Properties of Poly-Alkali Photocathodes. (Data
From the VIIth All-Union Conference on Cathode Electronics, Leningrad,
October 17-24, 1957) 48-22-5-11/12

cathodes is relatively low (fig. 7). The production method still could be simplified considerably. In the production of specimen- and test-devices V. I. Safronova and L. I. Biserkina took part. In the discussion on the abstract V. S. Gusel'nikov Shcheglov and the first author participated. There are 7 figures and 3 references, 1 of which is Soviet.

1. Cathodes (Electron tubes)--Materials 2. Cathodes (Electron tubes)
--Production 3. Cathodes (Electron tubes)--Properties 4. Alkali
metals--Applications

Card 3/3

VOROBIEVA, O.A. [Vorob'yeva, O.A.]

Problems of alkaline magmatism. Analele geol geogr 16 no.3:3-10 Jl-dg

¹⁶~~2~~

YOROB'IEVA, Ol'ga Anisimovna; SAMOYLOVA, Natal'ya Viktorovna;
SVESHNIKOVA, Yekaterina Vladimirovna; AFANAS'IEV, G.D., otv.red.;
MERGASOV, G.G., red.izd-va; POLENOVA, T.P., tekhn.red.

[Gabbro-pyroxenite-dunite belt in the Central Urals] Gabbro-
piroksenit-dunitovyj pojas Srednego Urala. Moskva, Izd-vo Akad.
nauk SSSR, 1962. 318 p. (Akademija nauk SSSR. Institut geologii
rudnykh mestorozhdenii, petrografii, mineralogii i geokhimii.
Trudy, no.65). (MIRA 15:6)
(Ural Mountains—Ore deposits) (Ural Mountains—Rocks, Igneous)

VOROB'YEVA, O. A.

The western contact zone of the alkali granite intrusion
of the Kola Peninsula. O. Vorob'eva. *Trav. Inst.
Pis'mogr. Akad. Nauk. (U. S. S. R.)* 2, 25-43 (1932); *Naučes.
Jahrb. Mineral., Geol., Referate II*, 380-42 (1933).—
Three new rock analyses are given. T. P. Schäfer

8

Mentions 1930 expedition of V. I. Vlodavts of Arctic Inst. into
this same region.

AB-514 METALLURGICAL LITERATURE CLASSIFICATION

140000 74

140003 1401 001 001

001000

001001 001 001 001

VOROB'YEVA, D.A.

Ca

Plagioclase pegmatite. D. A. Vorob'yeva. Izdat. nauch.-tekhn. literat. U. R. S. S. 6, 45 (1961). Mineralog. (Abstracts 6, 1961) p. 9. The hypersthene-quartz-diorite of Vachia Gora (USSR) is cut by several andesitic-pegmatite veins which contain phenocrysts of reddish andesite-anorthite (I) or a groundmass of andesite and biotite (II). Complete analyses of I and II are given.

C. A. Silverton

8

ASB-5A METALLURGICAL LITERATURE CLASSIFICATION

VOROB'YEVA, O. A.

(A)

8

Genesis of lepidolite deposits of Lovozersky intrusive.
D. A. Vondruška. Bull. Acad. sci. U. R. S. S., Classe des
Méts., Ser. géol. 1938, 4(5), 401-410 (in English, 416-8).
The various deposits of lepidolite are described; the usual
deposits in alk. intrusive formations are described; the usual
presents data showing that for the genesis of lepidolite it
is not absolutely necessary to appear in the gneissic septa
of Ch. It is claimed Cl, F, P, H₂S, etc., and stable
cations like Na and Ca play a greater part in the process.
I. S. Ioffe

A.I.S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

VOROB'YEVA, O. A.

AFANAS'IEV, G.D., doktor geologicheskikh-mineralogicheskikh nauk, redaktor;
BARSANOV, G.P., redaktor; VOROB'YEVA, O.A., redaktor; ZALESSKIY, B.V.,
redaktor; LAPIN, V.V., redaktor; LEBEDEV, A.P., redaktor; SALIVKIN,
V.V., akademik, redaktor; PETROV, V.P., redaktor; TSVETKOV, A.I.,
redaktor; DOLGOPOLOV, N.N., sostavitel'.

[Problems in petrology and mineralogy] Voprosy petrografii i minera-
logii. Vol. 2, Moskva, 1953. 496 p.
(MLRA 7:4)

1. Akademiya nauk SSSR.

(Petrology) (Mineralogy)

AFANAS'YEV, G.D., doktor geologicheskikh-mineralogicheskikh nauk, redaktor;
BARSANOV, G.P., redaktor; VOROB'YEVA, O.A., redaktor; ZALESSKIY, B.V.,
redaktor; LAPIN, V.V., redaktor; LEBEDYEV, A.P., redaktor; HALIVKIN,
V.V., akademik, redaktor; PETROV, V.P., redaktor; TSVETKOV, A.I.,
redaktor; DOLGOPOLOV, N.N., sostavitel'.

[Problems in petrology and mineralogy] Voprosy petrografii i mineralogii. Vol. 1, Moskva, 1953. 515 p.
(MIRA 7:4)

1. Akademiya nauk SSSR.

(Petrology) (Mineralogy)

VOROB'YEVA, O. A.

262T42

USSR/Geology - Obituary

Jul/Aug 53

"Academician Dmitriy Stepanovich Belyankin (Obituary)," G. D. Afanas'yev, B. P. Belikov, O. A. Vorob'yeva, B. V. Zalesskiy, V. V. Lapin, V. P. Petrov

Iz Ak Nauk SSSR, Ser Geol, No 4, pp 5-12

Announce demise of D. S. Belyankin (23 Aug 1876-20 Jun 1953), prominent geologist and petrographer of USSR.

262T42

LEVINSON-LESSING, Frants Yul'yevich, 1861-1939, akademik; AFANAS'YEV,
G.D., redaktor; BEL'SHTERLI, N.K., redaktor; VOROB'YEVA, O.A.,
redaktor; PETROV, V.P., redaktor; ZELENKOVA, Ye.B., tsekhicheskiy
redaktor.

[Selected works] Izbrannye trudy. Moskva, Izd-vo Akademii nauk SSSR.
Vol.4, 1955. 446 p. (MLRA 8:12)

1. Chlen-korrespondent AN SSSR, (for Afanas'yev)
(Petrology)

AFANAS'YEV, G.D., glav. red.; VOROB'YEVA, O.A., red.; APEL'TSIN,
F.R., red.; USTIYEV, Ye.K., red.; LEBEDEV, A.P., red.;
SVESHNIKOVA, Ye.V., red.

[Origin of alkali rocks; transactions] Proiskhozhdenie
shchelochnykh porod; trudy. Moskva, Nauka, 1964. 146 p.
(MIRA 17:11)

1. Vsesoyuznoye petrograficheskoye soveshchaniye. 3d.
2. Chlen-korrespondent AN SSSR (for Afanas'yev).

VOROB'YEVA, O.A., doktor geol.-miner. nauk, otd. red.

[Alkali igneous activity in the fold margin of the south of the Siberian Platform] Shchelochnoi magmatizm sklad-chatogo obramleniya iuga Sibirskoi platformy. Moskva, Nauka, 1965. 240 p. (MIRA 18:1)

1. Akademiya nauk SSSR. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii.

VOROB'YEVA, O.A.; KUZNETSOV, Ye.A.

Egor Mikhailevich Kupletskii, 1894-1965?; an obituary. Izv.
AN SSSR. Ser.geol. 30 no.11:128-131 N '65.

(MIRA 18:12)

GURULEV, S.A.; VOROB'YEVA, O.A., doktor geol.-miner. nauk,
otv. red.

[Geology and conditions governing the formation of the
Ioko-Dovryren gabbro-periodotite massif] Geologija i
uslovia formirovania Ioko-Dovyranskogo gabbro-periodo-
titnogo massiva. Moskva, Nauka, 1965. 120 p.
(MIRA 18:4)

GORSKIY, I.I., otv. red.; BELYAYEVSKIY, N.A., doktor geol.-min. nauk, zam. otv. red.; AFANAS'YEV, G.D., red.; BOGDANOV, A.A., doktor geol.-min. nauk, red.; VOROB'YEVA, O.A., doktor geol.-min. nauk, red.; KATUSHENOK, I.I., kand. geol.-min. nauk, red.; MENNER, V.V., doktor geol.-min. nauk, red.; MENYAYLOV, A.A., doktor geol.-min. nauk, red.; SMIRNOV, V.I., akademik, red.; SHATALOV, Ye.T., doktor geol.-min. nauk, red.; CHEPIKOVA, I.M., red. 1zd-va; TIKHOMIROVA, S.G., tekhn. red.

[Problems of geology at the 21st session of the International Geological Congress] Problemy geologii na XXI sessii Mezhdunarodnogo geologicheskogo kongressa. Moskva, Izd-vo AN SSSR 1963. 446 p. (MIRA 16:11)

1. Akademiya nauk SSSR. Natsional'nyy komitet geologov. 2. Chlen-korrespondent AN SSSR (for Afanas'yev, Gorskiy).
(Geology--Congresses)

AFANAS'YEV, G.D., otv. red.; VOROB'YEVA, O.A., red.; USTIYEV, Ye.K., red.; KUZNETSOV, Ye.A., red.; TSVETKOV, A.I., red.; KOPTEV-DVORNIKOV, V.S., red.; SVESHNIKOVA, Ye.V., red.; MIRAKOVA, L.V., red. izd-vap RYLINA, Yu.V., tekhn. red.

[Magmas and the origin of igneous rocks] Problemy magmy i genezisa izverzhennykh gornykh porod. Sbornik posviashchennyi stoletiiu so dnia rozhdeniya Frants Ul'evicha Levinsona-Lessinga. Moskva, 1963. 271 p. (MIRA 16:7)

1. Akademiya nauk SSSR. Otdeleniye geologo-geograficheskikh nauk. Chlen-korrespondent AN SSSR (for Afanas'yev).
(Magma) (Rocks, Igneous)

MENYAYLOV, A.A.; BOROB'YEVA, O.A., otv.red.; GALUSKHO, Ya.A., red.izd-va;
UL'YANOVA, O.G., tekhn.red.

[Tuffs and kimberlites of the Siberian Platform and their origin]
Tuffy i kimberlity Sibirskoi platformy i ikh proiskhozhdenie. Moskva,
Izd-vo Akad. nauk SSSR. 1962. 211 p. 12 plates. (Akademika nauk SSSR.
Iakutskii filial, Yakutsk, Trudy no.10) (MIRA 15:10)
(Siberian Platform—Volcanic ash, tuff, etc.)
(Siberian Platform—Kimberlite)

ROTSHTEYN, A.A.; VOROB'YEVA, O.A. [translator]

Phase relationships in the peridotites of Dawros (Ireland) and
Belhelvie (Scotland). Izv.AN SSSR.Ser.geol. no.3:69-86 Mr '61.
(MIRA 15:2)

1. Institut geologii rudnykh mestorozhdeniy, petrografii,
mineralogii i geokhimii AN SSSR, Moskva.
(Dawros, Ireland—Peridotite)
(Belhelvie, Scotland—Peridotite)

KONONOVA, Viktoriya Abbasovna; VOROB'YEVA, O.A., doktor geol.-mineral.nauk,
otv.red.; SMOLIN, P.P., red.izd-va; UL'YANOVA, O.G., tekhn.red.

[Urtite-iolite intrusives of southeastern Tuva and their genesis]
Urtit-iolitovye intruzii iugo-vostochnoi Tuvy i nekotorye voprosy
ikh genezisa. Moskva, Izd-vo Akad.nauk SSSR, 1961. 109 p. 8 tables.
(Akademija nauk SSSR. Institut geologii rudnykh mestorozhdenii,
petrografii, mineralogii i geokhimii. Trudy, no.60). (MIRA 15:1)
(Tuva Autonomous Province--Rocks, Igneous)

VOROB'YEVA, O.A.

Igneous nature of the platinum-bearing belt in the cabbro-peridotite
formation of the Urals. Izv.AN SSSR.Ser.geol. 26 no.7:23-39 Jl
'61. (MIRA 14:7)

1. Institut geologii rudnykh mestorozhdeniy, petrografii,
mineralogii i geokhimii AN SSSR, Moskva.
(Ural Mountains--Peridotite) (Ural Mountains--Platinum)

VORCB'YEVA, O.A.

Concerning the work of the petrographic section of the 21st
session of the International Geological Congress and impressions
from excursions through Sweden. Biul. MOIP. Otd. geol. 36
no.2:130-131 Mr-Ap '61. (MIRA 14:7)
(Geology--Congresses)

GALAKHOV, Aleksandr Vasil'yevich; VOROB'YEVA, O.A., doktor geol.-mineral.
nauk, otd.red.; ARON, G.M., red.izd-va; BLEYKH, Z.Yu., tekhn.red.

[Rischorrites in the Khibiny alkali massif] Rischorritы Khi-
binskogo shchelochnogo massiva, Moskva, Izd-vo Akad.nauk SSSR,
1959. 169 p. (MIRA 13:5)
(Khibiny Mountains--Nepheline syenite)

VOROB'YEVA, O.B.; MOSTOVSKIY, A.A.; STUCHINSKIY, G.B.

Secondary electron emission of multialkaline photocathodes.
Radiotekhnika i elektron. 10 no.3:484-490 Mr '65.
(MIRA 18:3)

MOSTOVSKIY, A.A.; VOROB'YEVA, O.B.; MAYSKAYA, K.A.

Bismuth-silver-cesium photocathodes. Fiz. tver. tela 1 no. 4:643-647
Fiz. tver. tela 1 no. 4:643-647 '59. (MIRA 12:6)
(Photoelectric cells)

MOSTOVSKIY, A.A.; VOROB'YEVA, O.B.; STUCHINSKIY, O.B.,

Photoelectric and secondary-emission properties of composite
photocathodes. Fiz. tver. tela 5 no.11:3325-3327 N '63.
(MIRA 16:12)

MOSTOVSKIY, A.A.; VOROB'YEVA, O.B.; PRIVALOVA, V.Ye.

Effectve photocathode sensitivity in the near ultraviolet region.
Radiotekh. i elektron. 7 no.9:1632-1636 S '62. (MIRA 15:9)
(Cathodes)

14

L 11091-63

ABSTRACT NO. A 4000-63

S/0104-03/108/005/0861-0807

V. V. Kostylev, V. V. Pashchenko, V. N. Privalova, V. Yu., Mayskaya, E. A.

Causes of complex photocathode fatigue. Report presented to the
Joint Institute of Nuclear Research, Dubna, Soviet Union, November 1963.

SOURCE: Radiotekhnika i elektronika, v. 8, no. 5, 1963, 861-087

TOPIC CLASS: complex photocathode fatigue, cathode layer, light absorption,
photocell, photoemission, electron bombardment, illumination effect

ABSTRACT: Antimony-cesium, bismuth-silver-cesium, silver-oxygen-cesium, and
silver-oxygen-antimony-cesium materials have been investigated in order to determine those
processes occurring in the cathode layer as a result of light absorption and
processes external to the photocathode taking place in the photocell, which are
the main causes of fatigue in a complex photocathode. Studies have been made
of 1) the effect of illumination (without photocurrent pickup) on the cathode
and its physical and semiconductor properties, 2) the effect on photoemission of
a surface layer due to the absorption of light (as a result of heating
of the internal surfaces of the photocell), and 3) the resistance to
corrosion of the internal surfaces of the photocell.

Card 1/2

JOURNAL OF CLIMATE

ACCESSION NR: AP3000504

of alkali metals during photocell operation. The main cause of photocathode aging is the loss of alkali metal from the glassy matrix due to the evaporation of alkali metals at 600° C. and above. This effect is eliminated by the use of a thin film of alkali metal on the glassy matrix. The alkali metal film is deposited on the glassy matrix by the method of vacuum evaporation.

ASSOCIATION: none

SUBMITTED: 14Mar62 DATE ACQ: 30May63 ENCL: 00
SUB CODE: SD NC RARF SOV: 009 OTHER: 004

cs/line
Card 2

VOROB'YEVA,
NOVOSELOVA, A.V.; VOROB'YEVA, O.I.; KNYAZEVA, N.N.; PASKUTSKAYA, L.N.

System BeSO₄ - FeSO₄ - H₂O. Zhur. ob. khim. 23 no.8:1284-1287 Ag '53.
(MIRA 6:8)

1. Moskovskiy Gosudarstvennyy universitet.
(Systems (Chemistry)) (Sulfates)

USSR/Chemistry - Beryllium

"The System BeSO₄-MnSO₄-H₂O at 25°,"^① O. I. Vorob'yeva
and L. P. Osanova

Zhur Obshch Khim, Vol 23, No 8, pp 1288-1289

Studied the solid isotherms and solvus of the above system at 25°. Found that BeSO₄ and MnSO₄ lower each other's solvus. At 25° the following are in the solid phase: BeSO₄·4H₂O, MnSO₄·5H₂O. MnSO₄·4H₂O is in the metastable phase at this temp. No double salts or solid solns were discovered in the system.

270T30

and Tamm, N. S.

"Solubility isotherm in the System; KF-BeF₂-H₂O at 25°C.", Khimiya Redkikh
Elementov, No. 2, p 3, 1955.

The solubility in the above system was investigated. The following solid phases were found: KF·2H₂O; K₂BeF₄; KBeF₃ and K Be₂F₅, x-ray power photographs of the last three salts were taken. K₂F₄Be₄ is soluble in water without decomposition while KBeF₃ and KBe₂F₅ dissolve with decomposition, but can be obtained from aqueous solutions containing a certain excess of berillium fluoride.

SO: D-413171

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860830008-7

1960-1961. The average value of the BeP₁ is
between 0.80 and 10.70.

C. H. Fuchsman

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860830008-7"

VOROB'YEVKA, Orl'evskiy AVUT, Ye. A.

Solubility in the system Na_2TeO_3 -- $\text{C}_2\text{H}_5\text{OH}$ -- B_2O at 25° . Zhur.
neorg. khim. 2 no. 5; 1154-1157 May '57.
(Solubility) (Systems (Chemistry)) (MLBA 10:2)

VOROB'YEVA, O.I.
VOROB'YEVA, O.I.; VLADIMIROVA, Z.A.

The system $\text{TeO}_2 - \text{HNO}_3 - \text{H}_2\text{O}$. Zhur.neorg.khim. 2 no.9:2221-2225
S '57. (MIRA 10:12)
(Tellurium oxides) (Nitric acid)

NEMKOVA, Ol'ga Georgiyevna; BUROVA, Yekaterina Ivanovna;
VOROB'YEVA, Ol'ga Ivanovna; IPOLITOVA, Yekaterina
Aleksandrovna; LAFITSKIY, Anatoliy Vasil'yevich;
KOROBTSOVA, N.A., red.; SPITSYNA, V.I., akademik, red.

[Laboratory work in inorganic chemistry] Praktikum po
neorganicheskoi khimii. Moskva, Izd-vo Mosk. univ.,
1965. 317 p.
(MIRA 18:8)

BOSIK, I. I.; VOROB'YEVA, O. I.; NOVOSELOVA, A. V.

Fusibility in the system Li_2SO_4 - BeSO_4 - H_2O at 750. Znur.
neorg.khim. 5 no.5:1174-1175 My '60. (MIRA 13:7)
(Lithium sulfate) (Beryllium sulfate)

LAVUT, Ye.A.; VOROB'YEVA, O.I.; SHUL'GINA, I.M.

Solubility in the system $\text{Na}_2\text{O} - \text{TeO}_2 - \text{H}_2\text{O}$ at 70° . Zhur.neorg.khim.
6 no.1212758-2761 D '61. (MIRA 14:12)
(Tellurium oxide) (Sodium oxide)

BOSIK, I.I.; VOROB'YEVA, O.I.; NOVOSELOVA, A.V.

System Li₂SO₄ - BeSO₄ - H₂O at 25°. Zhur.neorg.khim. 5
no:5:1157-1162 My '60. (MIRA 13:?)
(Lithium sulfate) (Beryllium sulfate)

MEMKOVA, O.G.; BUROVA, Ye.I. [deceased]; VOROB'YEVA, O.I.; IPPOLITOVA,
Ye.A.; LAPITSKIY, A.V.; SPITSYN, V.I., akademik, red.; KONDRAŠKOVA,
S.F., red.; LAZAREVA, L.V., tekhn.red.

[Handbook for practical studies in inorganic chemistry] Rukovodstvo
k prakticheskim zaniatiam po neorganicheskoi khimii. Pod red.
V.I.Spitsyna. Izd-vo Mosk.univ., 1959. 299 p. (MIRA 12:3)
(Chemistry, Inorganic--Laboratory manuals)

AUTHORS: Vorob'yava, O. I., Mikhayevn, L. M., S07/78-3-8-18/48
Sizanov, Yu. P.

TITLE: On the Problem of the Production of Lithium-Beryllium Fluoride From Aqueous Solutions (K voprosu polucheniya fторобериллиата litiya iz vodnykh rastvorov)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol. 3, Nr 8,
pp. 1824-1828 (USSR)

ABSTRACT: A method of production of Li_2BeF_4 by an exchange reaction between ammonium-beryllium fluoride and soluble lithium salts was described. In the interaction of equimolar quantities $\text{LiCl} : (\text{NH}_4)_2\text{BeF}_4 = 1 : 1$ the compound $\text{LiNH}_4\cdot\text{BeF}_4$ precipitates. Analogous compounds are also isolated with the following composition: $\text{LiNa}\cdot[\text{BeF}_4]$, $\text{Na}_3\text{Li}\cdot[\text{BeF}_4]_2$ and $\text{Na}_2\text{Li}\cdot[\text{Be}_2\text{F}_7]$. On an increase of the ratio lithium chloride : ammonium-beryllium fluoride = 3 : 1 almost pure lithium-beryllium fluoride $\text{Li}_2\text{BeF}_4 \cdot \text{H}_2\text{O}$ or Li_2BeF_4 is produced. The lithium-beryllium fluoride produced and the ammonium salts

Card 1/3

On the Problem of the Production of Lithium-Beryllium Fluoride From Aqueous Solutions SOV/78-3-8-18/48

$\text{Li}_5\text{NH}_4[\text{BeF}_4]_2$ and $\text{NH}_4\text{Li}[\text{BeF}_4]$ are incongruently soluble in water. On the other hand lithium-beryllium fluoride and ammonium salt $\text{Li}_2\text{NH}_4[\text{Be}_2\text{F}_7]$ are congruently soluble in water.

The solubility and density of all these compounds was investigated. The radiographic investigations of these compounds prove their individual character. Lithium-beryllium fluoride and ammonium salt $\text{LiNH}_4\text{BeF}_4$ crystallize in hexagonal shape and show the following parameters:

$a = 10,47 \pm 0,02$ kH, $c = 8,68 \pm 0,01$ kH and $z = 4$. In the thermal decomposition lithium-beryllium fluoride and the corresponding ammonium salts decompose at $220-300^\circ\text{C}$ under complete separation of ammonium fluoride. After the separation of ammonium fluoride the following compounds are formed:

Li_2BeF_4 or $\text{Li}_2\text{BeF}_4 \cdot \text{H}_2\text{O}$.

There are 2 figures, 2 tables, and 7 references, 0 of which is Soviet.

Card 2/3

On the Problem of the Production of Lithium-Beryllium Fluoride From Aqueous Solutions SOV/78-3-8-18/48

SUBMITTED: July 8, 1957

Card 3/3

AUTHORS: Vorobjeva, O. I., Lavut, Ye. A. SOV/78-3-9-3/38

TITLE: I. On Tellurites of Sodium and Potassium L.(O telluritakh natriya i kaliya)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol 3, Nr 9, pp 2006-2010 (USSR)

ABSTRACT: A new method of preparing sodium and potassium tellurite was discussed. The method is as follows: Tellurium dioxide is mixed in a 20% sodium hydroxide at an abundance of 5-10% at a temperature of 70-80°C. The sodium tellurite formed is precipitated by ethyl alcohol. The determination of tellurium and sodium in sodium tellurite is carried out by titrating the tellurium with Mohr's salt using the indicator phenyl anthranilic acid. Sodium was determined by the gravimetric method as sodium zinc uranyl acetate, and by volumetric method. The alkalimetric determination of sodium provides higher values. Sodium tellurite has the following formula: $\text{Na}_2\text{TeO}_3 \cdot 5\text{H}_2\text{O}$. The pentahydrate of sodium tellurite dehydrates in the air. When storing sodium tellurite in the exsiccator over phosphorus pentoxide and dry potassium hydroxide, a complete dehydration is only reached after ten

Card 1/2

I. On Tellurites of Sodium and Potassium

SOV/78-3-9-3/38

days. The dehydration of sodium tellurite proceeds very rapidly at 100-120°C under a simultaneous oxidation of tellurite to tellurate. The thermographical analyses showed that an intense dehydration with a loss of about 4,5 moles of water occurs at 100-160°C. When storing sodium tellurite in the air a partial carbonization occurs. The pentahydrate of sodium tellurite is precipitated from aqueous solutions by ethyl alcohol in two modifications: in prisms and hexagonal plates. The density of the sodium tellurite determined varies between $d_{25} = 2,25-2,60$, which also indicates the presence of two crystalline forms. There are 3 figures, 4 tables, and 10 references, 5 of which are Soviet.

SUBMITTED: July 8, 1957

Card 2/2

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PHASE I BOOK EXPLOITATION

SOY/1648

Nemkova, O.G., Ye. I. Eurova (Deceased), O.I. Vorob'yeva, Ye.A.
Ippolitova, and A.V. Lapitskiy.

Rukovodstvo k prakticheskim zanyatiyam po neorganicheskoy khimii
(Handbook for Laboratory Work in Inorganic Chemistry) [Moscow]
Izd-vo Mosk. univ., 1959. 299 p. 15,000 copies printed.

Ed. (Title page): V.I. Spitsyn, Academician; Ed. (Inside book):
S.F. Kondrashkova; Tech. Ed.: L.V. Lazareva.

PURPOSE: This handbook is intended for beginning students in chemistry
departments of state universities.

COVERAGE: The book consisting of 35 chapters deals with the most
important aspects of general and inorganic chemistry. The authors
attempt to cover the properties of elements and their compounds as
well as the synthesis of various inorganic compounds. The handbook
should inculcate in students the habit of assembling and using
modern laboratory equipment. Second semester students are expected

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Handbook for Laboratory Work in Inorganic Chemistry SOV/1648

to synthesize metal compounds and to study their properties. Since little theory is presented in this handbook, the students are expected to do independent work with chemical literature. The handbook is based on the long experience of the following professors and docents of the Moscow State University: E.F. Krause, Ye. F. Den'gin, V.S. Zaykov and A.D. Funk. There are no references.

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1.Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redkikh metallov.

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1.Gosudarstvennyy institut stekla.